

CLAIMS

1. Assembly for loading and unloading products, comprising a balanced loading and unloading arm installed at a first location and having a  
5 compass-style duct system mounted by one of its ends on a base and provided at the other of its ends with a connection system suitable for connecting the compass-style duct system to a coupling means installed at the second location, characterized in that it comprises, in addition, a cable joined on the one hand to means integral with the base and suitable for  
10 subjecting this cable to a constant tension and suitable for being joined, on the other hand, to the second location, the loading and unloading assembly also comprising guiding means capable of co-operating with the cable so as to guide the connection system along a trajectory materialized by the said cable until the connection system is brought into a position of connection to  
15 the coupling means.

2. Loading and unloading assembly according to claim 1, characterized in that the guiding means comprise a drive winch, integral with the connection system, suitable for providing the said guiding of the connection system on the cable and also suitable for driving by friction the  
20 movement of the connection system along the cable, when the latter is stretched between the first location and the second location.

3. Loading and unloading assembly according to claim 2, characterized in that the cable is fitted, on its part intended to be joined to the second location, with means suitable for co-operating with a locking system  
25 integral with the second location and permitting the cable to be kept attached to the second location.

4. Loading and unloading assembly according to claim 3, characterized in that the said means suitable for co-operating with a locking system comprise a sleeve crimped onto the cable.

30 5. Loading and unloading assembly according to claim 1, characterized in that the said guiding means comprise means for attaching

the connection system onto the cable and also means of winding the cable, the latter being connected by one of its ends to the means suitable for subjecting this cable to a constant tension and, by the other of its ends, to the said winding means, whilst the cable is joined to the second location by a  
5 return pulley.

6. Loading and unloading assembly according to claim 5, characterized in that the said means for winding the cable comprise an approach winch integral with the base.

7. Loading and unloading assembly according to one of claims 1  
10 to 6, characterized in that the cable crosses the connection system from one side to the other.

8. Loading and unloading assembly according to one of claims 1  
to 7, characterized in that the means suitable for subjecting the cable to a  
constant tension also comprise an emergency disconnection system for the  
15 cable.

9. Loading and unloading assembly according to claim 8, characterized in that the means suitable for subjecting the cable to a constant tension comprise a winder and in that said emergency disconnection system comprises a device for clamping the cable suitable for releasing the cable  
20 when the latter is unwound beyond a predetermined minimum number of turns.

10. Loading and unloading assembly according to one of claims 1 to 9, characterized in that it comprises an alignment guide integral with the connection system and capable of keeping at a distance from the connection  
25 system a ring through which the cable passes.

11. Loading and unloading assembly according to one of claims 1 to 10, characterized in that it comprises a rotation device capable of ordering an angular movement of the connection system relative to the compass-style duct system.

30 12. Combination comprising an assembly according to one of claims 1 to 11, characterized in that it also comprises coupling means fitted

with means for fixing to the second location, these coupling means being suitable for co-operating with the said connection system.

13. Combination according to claim 12, characterized in that the connection system comprises a female truncated conical element and in  
5 that the coupling means comprise a male truncated conical element, the female truncated conical element and the male truncated conical element being suitable for fitting into each other in order to define a relative positioning of the said assembly and said coupling means.